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THE GENUS *ISCHNOCEROS* GRAVENHORST (HYMENOPTERA: ICHNEUMONIDAE) IN CHINA

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Abstract.—Four species of the genus *Ischnoceros* Gravenhorst, 1829, collected in China are reported. One species is described, ***Ischnoceros pedipullus*, n. sp.**, and two species, *I. rusticus* (Geoffroy, 1785) reared from *Acanthocinus aedilis* (Linnaeus) (Cerambycidae) in *Pinus,* and *I. sapporensis* Uchida, 1928, reared from *Callidium* sp. (Cerambycidae) in *Quercus,* are new records for China. A key to the four species known in China is given.

Key Words: Hymenoptera, Ichneumonidae, *Ischnoceros,* new species, China

Ischnoceros Gravenhorst, 1829, is a small genus belonging to the subfamily Xoridinae which are important parasitoids of wood borers (Cerambycidae). Species are distributed in the Oriental, Neotropical, and Holarctic regions. Ten world species are known (Wang et al. 1997, Yu and Horstmann 1997). The genus has not been studied thoroughly in the Oriental and Palearctic regions of China (Zhang and Zhao 1996). Only one species, *I. sanxiaensis* Wang, 1997, previously has been recorded. In this study, one new species is described and two species are newly recorded for China.

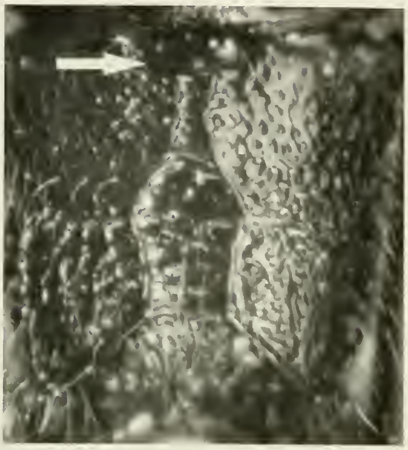
Identifications of *I. rusticus* (Geoffroy) and *I. sapporensis* Uchida are based on determined specimens loaned from K. Schönitzer, J. Hilszczanski, and R. Matsumoto. Identification of *I. sanxianesis* Wang is based on the study of the type. Specimens from this study are deposited in the collections of the General Station of Forest Pest Management, State Forestry Administration, Shenyang, Liaoning, China.

Ischnoceros is distinguished from other genera of Xoridinae by the two subequal teeth at the apex of the mandible, frons with a strong median horn or tubercle, and hind femur without a median ventral tooth.

Ischnoceros pedipullus Sheng, new species

(Figs. 1, 2, 3a)

Female.—Body 9.5 mm long. Forewing 7.4 mm long. Face 2.0× wider than long, strongly convex centrally, densely punctate with puncture diameters 3.0× to 4.0× distance between punctures, lateral margins with faint punctures; upper portion below antennal sockets with oblique wrinkles. Clypeal suture distinct and deep. Clypeus smooth, without punctures; basal portion transversely convex; lateral sides with short transverse wrinkles; median portion flat; apical portion weakly concave. Mandible with two teeth, lower tooth distinctly shorter than upper tooth. Malar space 0.4× as long as basal width of mandible. Temple smooth, with fine punctures, diameter of punctures about same as distance between punctures; median portion weakly convex longitudinally; posterior portion converging backward; 1.3× as long as eye in dorsal



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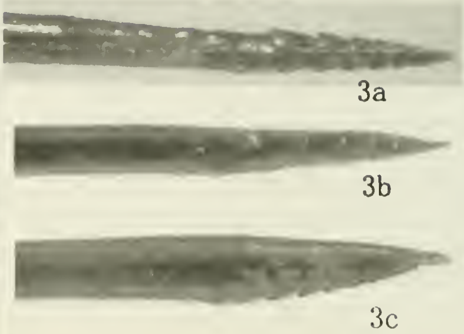

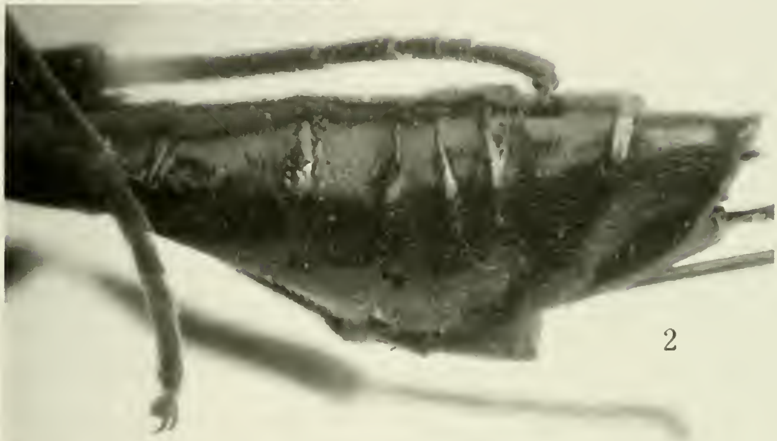

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Figs. 1–3. *Ischnoceros* species. 1, *I. pedipullus*, propodeum; arrow points to semicircular notch. 2, *I. pedipullus*, lateral view of metasomal apex. 3, Apex of ovipositor of *I. pedipullus* (a), *I. rusticus* (b), and *I. sapporensis* (c).

view. Vertex smooth, with fine, very sparse punctures, diameter of punctures 0.3×–0.8× distance between punctures; distance between lateral ocellus and occipital carina very wide, lateral ocellus distinctly located anterior to line connecting hind margins of eyes. Outside of stemmaticum with dense transverse wrinkles. Distance between lateral ocelli 0.8× distance between lateral ocellus and compound eye. Frons with dense transverse wrinkles, lateral margins with unclear and shallow punctures, its center with a strong, very deeply hollowed protuberance, bifurcated at upper portion. Antenna filiform with 33 flagellomeres; first flagellomere 1.1× longer than second; second, third, and fourth about same length; remaining flagellomeres gradually decreasing in length. Occipital carina complete and strong. Front and hind portion of pronotum with dense longitudinal wrinkles, dense transverse wrinkles at center of lateral side. Epomia indistinct. Front portion of middle lobe of mesonotum with distinct punctures; hind portion strongly rough; outside of lateral lobe with dense and large punctures, diameter of punctures about 4.0× distance between punctures; sublaterally with dense and oblique longitudinal wrinkles. Notaulus reaching center of mesoscutum. Scutellum nearly flat, with dense punctures, diameter of punctures about 3.0× distance between punctures. Postscutellum strongly convex, with a triangular concavity in front. Mesopleuron with dense longitudinal wrinkles. Speculum smooth. Upper end of epicnemial carina reaching front margin of mesopleuron. Epicnimium rough. Mesosternum with dense punctures, diameter of punctures 3.0×–5.0× distance between punctures; median groove of mesosternum deep and broad a hind portion. Metapleuron rough, with rough and irregular wrinkles. Wings brownish hyaline. Forewing vein 1cu-a distinctly basad of 1M; 3rs-m absent; 2rs-m distinct, 0.3× as long as distance between it to 2m-cu; base of 1m-cu separated from cu1a by 2.0× length of cu1b. Hind wing veins 1Cu and cu-a approximately equal. Median part of base of propodeum descending strongly to forma a semicircular notch (Fig. 1). Carinae of propodeum strong, lateral carinae of basal area parallel; areola confluent with basal area and separated from petiolar area by a distinct carina. Costula distinct. Propodeal apophysis large and compressed, about 1.5× diameter of second antennal flagellomere. Areola and pleural areas with transverse wrinkles. Petiolar area with oblique longitudinal wrinkles. First lateral areas with punctures. Second lateral areas with longitudinal wrinkles. Metasoma comparatively short and glossy. First tergite 1.7× longer than its apical width, strongly bent at spiracle, with irregular and fine lines, fine oblique transverse lines at middle portion of subapex. Second to fourth tergites with dense and fine transverse lines. Fifth and sixth tergites with very weak transverse lines, each about 0.3× longer than their basal width. Ovipositor sheath 5.0 mm long, about 1.6× longer than hind tibia. Apical portion of lower valve of ovipositor (Fig. 3a) with 6 distinct ridges, basal ridge weakly oblique, rest vertical; roughened area basad of basal ridge.

Black. Clypeus dark brown. Palpi brownish black. Front leg brown to dark brown. Middle and hind legs, except for black coxae and hind femur, blackish brown to brownish black. Bases of tibiae and first tarsal segments white. Stigmata darkish brown. Veins brownish black.

Holotype.—♀, China: Baishilazi Natural Reserve, 400 m, Kuandian County, Liaoning Prov., June 1, 2001, Mao-Ling Sheng.

Host.—Unknown.

Etymology.—The species name is based on the color of the legs.

Diagnosis.—*Ischnoceros pedipullus* is similar to *I. sapporensis* but can be distinguished from the latter by the brownish black palpi, median part of the base of the propodeum with a semicircular notch (Fig. 1), lateral carinae of basal area parallel, lower valve of ovipositor with a roughened area basad of the basal ridge (Fig. 3a), most of the middle legs brownish black, and the middle and hind coxae black. *Ischnoceros sapporensis* has the palpi white; basal portion of the propodeum without a notch, lateral carinae of the basal area strongly divergent anteriorly, lower valve of the ovipositor without a roughened area (Fig. 3c), most of the middle legs light brown to brown, and most of the middle and hind coxae brown to darkish brown.

Ischnoceros rusticus (Geoffroy, 1785)
(Fig. 3b)

New record for China.

Specimens examined.—1 ♀, China: Dongcun, Mudanjiang, Heilongjiang Prov., June 25, 1980, Jing-Wen Shao; 1 ♀, China: Tonghua, Jilin Prov., June 30, 1992, Mao-Ling Sheng.

Host.—I reared this species from *Acanthocinus aedilis* (Linnaeus) (Cerambycidae) in *Pinus* from China: Tonghua, Jilin Province.

Ischnoceros sapporensis Uchida, 1928
(Fig. 3c)

New record for China.

Specimens examined.—2 ♀, China: Xinbin, Liaoning Prov., June 10, 1999, Mao-Ling Sheng; 1 ♀, Kuandian (Baishilazi Natural Reserve), 400 m, Liaoning Prov., June 1, 2001, Mao-Ling Sheng.

Host.—I reared this species from *Calli-*

dium sp. (Cerambycidae) in *Quercus* from China: Xinbin, Liaoning Province.

KEY TO SPECIES OF *ISCHNOCEROS* IN CHINA

1. Median part of base of propodeum without notch; lateral carinae of basal area strongly divergent anteriorly 2
– Median part of base of propodeum descending strongly to form a semicircular notch (Fig. 1); lateral carinae of basal area parallel . . . . *I. pedipullus*, n. sp.
2. Third to sixth tergites with dense punctures . . . . *I. sanxiaensis* Wang
– Third to sixth tergites with dense and fine transverse lines 3
3. Palpi white; coxae mostly brown to darkish red brown; basal area and areola separated by a strong carina; first and second tergites without transverse lines, or only median portion at hind margin of second tergite with fine transverse lines; ovipositor in Fig. 3c . . . . *I. sapporensis* Uchida
– Palpi brownish black; coxae red; basal area and areola not separated by a distinct carina; first and second tergites with dense and fine transverse lines; ovipositor in Fig. 3b . . . . *I. rusticus* (Geoffroy)

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